



- Non contact – Hall effect measurement technology
- Dual axis
- Special design for mobile machines
- Robust structure, long service life
- Model with button or without button
- 5 million cycles mechanical life
- Resistant to electromagnetic field
- 0-10V, 0-5V, 0.5-4.5V, 0-20mA, 4-20mA or CANopen output options
- IP67 protection class

AJS series joysticks have a mechanical structure similar to hydraulic joysticks. However, it has more precise measurement, high performance and long operating life with non-contact hall-effect technology. With its robust structure, it is suitable for use in mobile vehicles operating in the field. Analog and CANopen interface options are available for easy integration.

AJS series joysticks offer easy installation and use with its ergonomic structure, precise control and compact dimensions. In addition, thanks to its maintenance-free structure and high protection class, it works perfectly in harsh ambient conditions.

MECHANICAL SPECIFICATIONS

Angle of movement	±25° (from center) ±1 tolerance
Operating force (X, Y axis)	2.5N±1N
Life	5 million lifecycle
Material	Shaft: Stainless steel
	Boot: NBR
	Handle: Delrin® POM-C EN 10204
	Housing: Aluminum
Weight	~190gr

ENVIRONMENTAL SPECIFICATIONS

Protection Class	IP67
Operating Temperature	-40°C...+85°C
Storage Temperature	-40°C...+85°C
Relative Humidity	%10...%90 RH

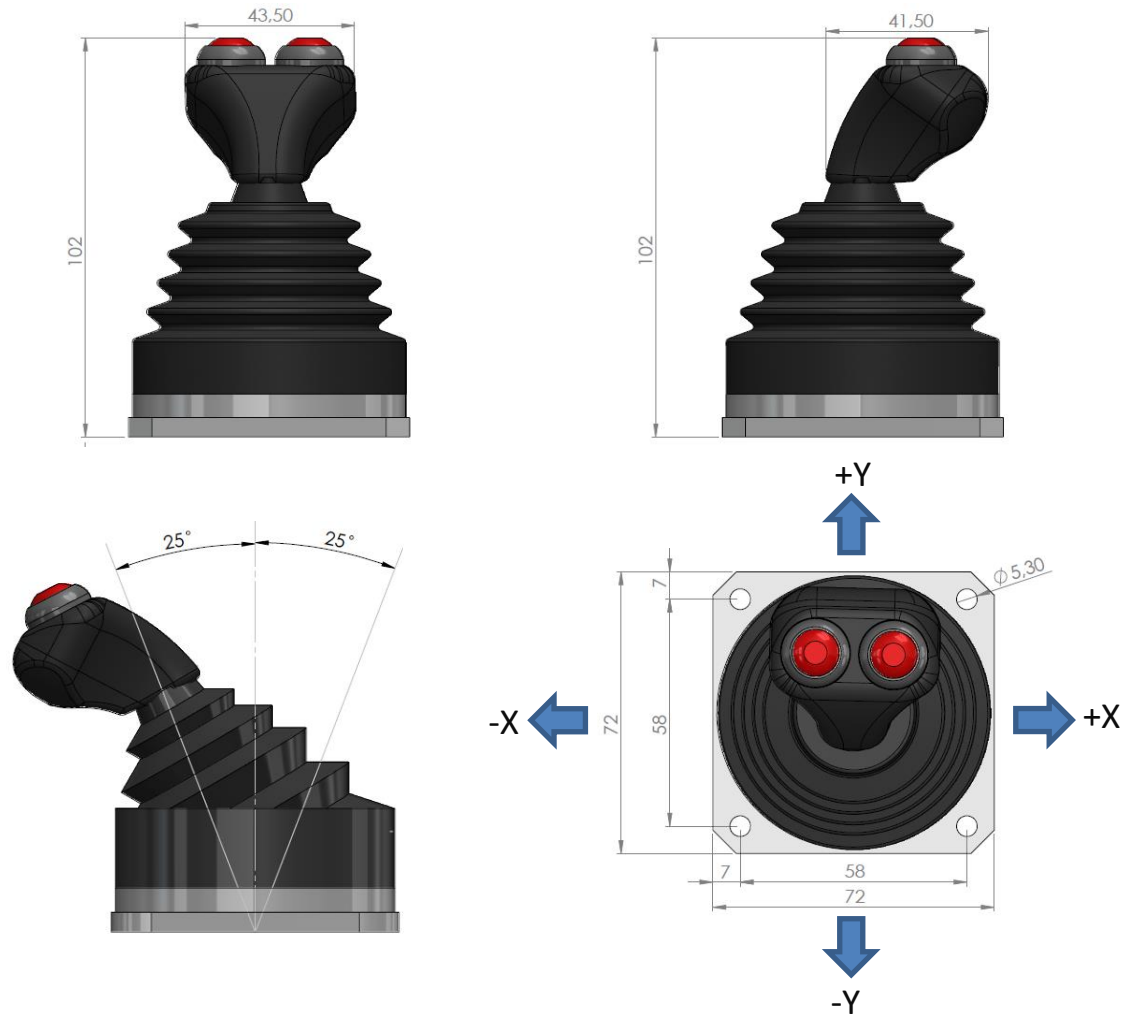
ELECTRICAL SPECIFICATIONS

Analog Version	
Sensor Type	Hall-effect, 2axis
Resolution	11 bit
Supply Voltage	15 ... 30 VDC
Supply Current	≤40 mA (per axis)
Reverse Polarity Protection	Yes (supply)
Short-Circuit Protection	Yes
Overvoltage Protection	Up to 33V
Electrical Interface	4-20 mA, 0-20 mA, 0-10V, 0-5V, 0.5-4.5V
Return to Center Accuracy	±%2
Load Resistance	For current output; min 250 Ω For voltage output; min 1 KΩ

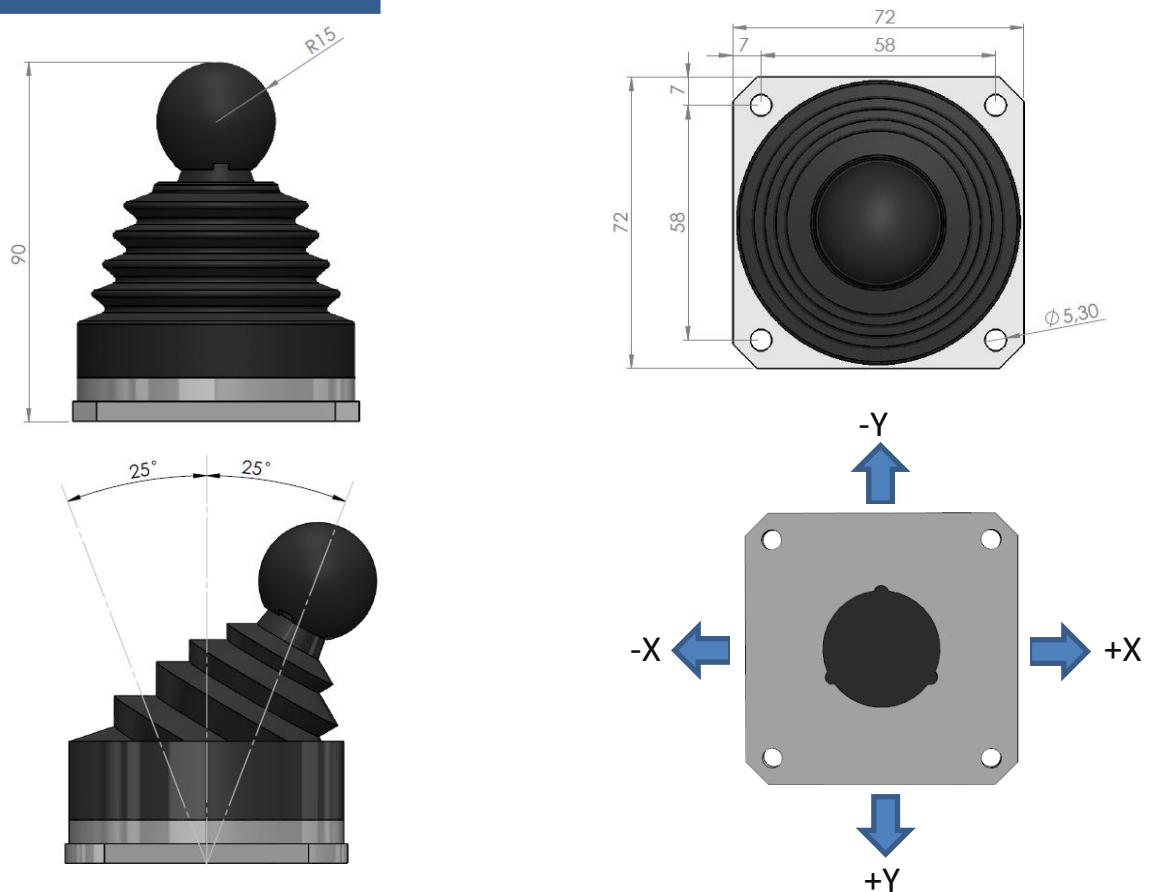
CANopen Version	
Sensor Type	Hall-effect, 2 axis
Resolution	11 bit
Supply Voltage	8 ... 30 VDC
Supply Current	≤40 mA (per axis)
Reverse Polarity Protection	Yes (supply)
Short-Circuit Protection	Yes
Overvoltage Protection	Up to 33V
Protocol	CANopen protocol: CiA DS-301 V4.02 Device profile: DS-401 V3.0
Node ID	Can be set from 1 to 127 with LSS or SDO Default Node ID:1
Baud Rate	10 kBit/s, 20 kBit/s, 50 kBit/s, 100 kBit/s, 125 kBit/s, 250 kBit/s, 500 kBit/s, 800 kBit/s, 1 Mbit/s
PDO Data Rate	100 ms
Error Check	Heartbeat, Emergency Message
PDO	3 Tx PDO
PDO Modes	Event/Time triggered, Synch/Asynch
SDO	1 server
Position Data	Object Dictionary 0x6020
Terminating Resistor	Optional

MECHANICAL DIMENSIONS (mm)

With Button



Without Button

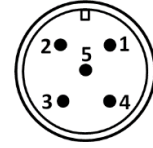


ELECTRICAL CONNECTIONS

Analog

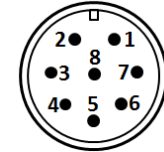
WITHOUT BUTTON

Signal	M12 / 5 Pin Male Connector	Cable
V+ (15...30VDC)	Pin 1	Red
GND (0V)	Pin 2	Black
Analog Out 1 (X axis)	Pin 3	Yellow
Analog Out 2 (Y axis)	Pin 4	Green
N/C	Pin 5	Pink



WITH BUTTON

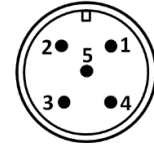
Signal	M12 / 8 Pin Male Connector	Cable
V+ (15...30VDC)	Pin 1	Red
GND (0V)	Pin 2	Black
Analog Out 1 (X axis)	Pin 3	Yellow
Analog Out 2 (Y axis)	Pin 4	Green
Comm.	Pin 5	Blue
Button 1	Pin 6	White
Button 2	Pin 7	Grey
N/C	Pin 8	-



CANopen

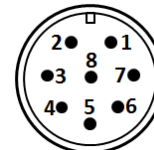
CAN CONNECTION

Signal	M12 / 5 Pin Male Connector	Cable
CAN_SHIELD	Pin 1	Shield
V+ (8...30VDC)	Pin 2	Red
GND (0V)	Pin 3	Black
CAN_H	Pin 4	Yellow
CAN_L	Pin 5	Green



CAN + EXTERNAL BUTTON CONNECTION

Signal	M12 / 8 Pin Male Connector	Cable
CAN_SHIELD	Pin 1	Shield
V+ (8...30VDC)	Pin 2	Red
GND (0V)	Pin 3	Black
CAN_H	Pin 4	Yellow
CAN_L	Pin 5	Green
Comm.	Pin 6	Blue
Button 1	Pin 7	White
Button 2	Pin 8	Grey



ORDER CODE

Model	Serie	Number of Axis	Numbr of Button	Output Signal	Electrical Connection
AJS	10	2: 2 axis	B0: Without button B2: 2 Buttons	V: 0-10V V1: 0-5 VDC V3: 0.5-4.5V A: 4-20mA A0: 0-20mA C: CANopen	1M: 1 meters cable (CANopen or analog) *Optional other lengths S13M: M12/5 pin male connector (No CANopen / external button cable or analog output without button) S14M: M12/8 pin male connector (CANopen + separate cable for button and analog output with button)



Gebze OSB, 800. Sokak, No:814 Gebze/KOCAELİ/TURKEY

